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TWO QUASI ENTOMOLOGICAL ESSAYS OF THE EIGHTEENTH CENTURY

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Traces of entomology are likely to occur almost anywhere, even within the essays of Eighteenth Century writers, where ordinarily one does not expect to find extended references to insects. The *Adventurer*, a periodical that lived from 1752 until 1754, includes two papers of some entomological interest. One, entitled "Various Transmigrations of a Flea," appeared in the fifth issue, Tuesday, November 21, 1752, and the other, the "Adventures of a Louse," in the one hundred and twenty-first issue, Tuesday, January 1, 1754.

The *Adventurer*, one of the numerous periodicals of the Eighteenth Century, appeared after the desinenice of Doctor Johnson's *Rambler*, under the guidance of Doctor Hawkesworth and with the help of Johnson, Warton and Bathhurst. It was their thought that the *Adventurer* "should consist of pieces of imagination, pictures of life, and disquisitions of literature." The paper on the "Various Transmigrations of a Flea," which was written by Bathhurst, the humorist of the group, is an account of the exercitation of the theory of the transmigration of souls, wherein are related the adventures of an eldest son, who, having received fatal injuries while hunting, dies and becomes sequaciously a mongrel puppy, a bullfinch, a cockchafer, an earthworm and finally a flea, which upon being killed is transformed into "a young Lady of exquisite beauty." This young lady indulges in some moralizing and asks the "Adventurer" to warn her sex of the knavery that is employed for their destruction. Entomologically, the flea does not perform and Bathhurst could easily have utilized some other animal.

The "Adventures of a Louse," written by Hawkesworth, has been called "a rather melancholy story," but to an entomologist it is anything but that, and can be interpreted as a somewhat realistic piece of drollery. The fictitious author, Dormitor, relates how he came home from the tavern one night and read the fifth number of the *Adventurer* containing the story of the flea. After he fell asleep he dreamt that he saw not a flea at the bottom of the page but a louse, which addressed him in so solemn a manner that he was reminded of sermons heard formerly in Saint Stephen's Chapel. The louse tells of his birth in the head of an eight-year-old boy who was being educated at a charity school and who was under the care of the parish nurse. The family of the louse was large and in little danger from the comb or razor, although some fear was felt that their country might become overcrowded, necessitating migration in search of another.

Finally an unfortunate thing happened. The boy was selected by an itinerant doctor and his assistant as a subject upon which to demonstrate their hocus-pocus, during the course of which the assistant was to put gold under the

boy's hat. Instead of gold, however, the assistant conveyed a stale egg which he smashed to the great joy of the audience, the sorrow of the boy and the confusion and affliction of the louse and his family. The boy returned to his nurse, who was so annoyed by the odour that she held his head under the pump, thereby subjecting the lice to a second deluge, the water washing them away by the hundreds. The narrator was one of the few that had strength enough to hold on against the rush of water. When it was all over they found most of their friends gone, and also the danger of famine.

The boy next got into a fight on Holy Thursday, receiving from his opponent a clout on the head which killed the louse's favorite wife and three children, the remains of his family. This so frightened the louse that he crawled down to the boy's neck where he was discovered and captured. The boy attempted to throw him into the fire, but the louse by holding on between the boy's finger and nail fell short of the fire and landed on some linen that was drying. The boy's nurse took in washing, and it happened that the louse found himself on the clothing of a lady who often attended court. He concealed himself in the plaits and had the distinction of accompanying her into the drawing room the next night. While attempting to reach the lady's head the louse was discovered by the other guests and finally by the lady herself. A young gentleman desiring to rescue the lady stooped down and blew him away.

The louse then landed in the toupee of a "battered beau" where he found the hair thin and his progress impeded by powder. He only stayed there a week, during which time he was alone and exposed to the "claws" of the valet. In the morning he was likely to be "kneaded" into a lump of "pomatum" or squeezed to death between the "forceps" of a crimping iron. At night, after evading the comb, he was likely to be run through with a pin.

He abandoned this head and crawled into a bag that was used by both master and valet. By this means he finally reached the valet's head where the hair was dense. The valet, upon being discharged for theft, obtained a position as assistant to a barber. One of the barber's customers was a philosopher who wanted to repeat Levenhoeek's experiments upon the increase of lice. As he needed a specimen he asked the barber for one. The barber pulled out a comb and produced the louse and two associates, one of which died after such rough handling.

The philosopher placed the louse in his stocking where a big family was raised. This gentlemen, however, was so susceptible to the cold that he would sit close to the fire, and the lice would almost be roasted alive before they could scurry around to his calf. Sometimes he would spill his hot broth or tea over his knees and the hot liquid would run down to his ankles, necessitating a rubbing of the burn later, which would always result in some of the lice being crushed.

For the edification of a lady the louse was next put under a microscope and then forgotten. Here he remained for three days and nights without food, being liberated only by the action of a boy who poked his finger through the cavity in which the louse was imprisoned. The window being open, he was blown into the street falling on the "perriwig" of a "doctor of physic." This he

found to be a barren wilderness, devoid of either food or inhabitants and in addition apparently boundless and difficult to traverse. He finally fell on the head of a hospital patient, and with a plentiful supply of food and warmth soon regained his strength.

However, another patient, a child of six, on account of jaundice was required to take a certain number of live lice administered in a spoonful of milk. A collection was made and our hero was one of the unfortunates. He found himself struggling in the milk and approaching the jaws of the child. He felt that his end was near, but was saved by the unruly child's action in dashing the spoon out of the nurse's hand. After some trouble he made his way back to another patient's head. As this one was to be shaved for a blister a barber appeared on the scene, and while the patient's head was being lathered the louse became entangled in the suds and luckily was deposited uninjured on the barber's shaving cloth. From here he gained the shoulder of Dormitor and thence the table and book where he was first observed.

In closing the louse stated that he hoped to discover some dwelling where combs never entered, where nails never scratched and where security and an abundance of food existed. At this Dormitor awakes and reflects that "the life of man is not less exposed to evil" and that his "expectations of security and happiness in temporal possessions are equally chimerical and absurd."

DESCRIPTIONS OF NEW CANADIAN DIPTERA.*

BY C. HOWARD CURRAN

Ottawa, Ont.

(Continued from page 175)

***Chilosia consentiens* n. sp.**

Related to *C. orilliaensis* Curran, from which it is at once distinguished by the presence of a patch of black pile above each antenna, of numerous short black hairs on the thorax among the longer pale pile and longer abdominal pile. Length 10 mm.

Female. Black. Face deeply concave between antennae and tubercle, the oral margin as prominent as antennal base, shortly concave beneath tubercle which is large, rounded and very prominent; face not produced downwards; moderately covered with greyish pubescence except the tubercle, thickly pollinose above and on the side margins. Front gently widened anteriorly, the lateral depressions fairly wide, median sulca not deep; depression across lower fourth conspicuous; pile black on upper third and above each antenna, elsewhere pale, fairly long; occiput densely greyish pillinose, the pile pale cinereous. First antennal segment black; second brownish red, third narrowly brownish above and apically, elsewhere reddish; rectangular with rounded corners, one and one quarter as long as wide; arista slender, scarcely as long as width of front.

Thorax with indications of aeneous, the pile erect, fairly long for female, with black hairs intermixed (these longer behind), with the pile yellow. Scutellum with marginal bristles.

Legs black; apices of femora, anterior four tibiae on basal third and apical fourth, and the posterior tibiae on basal fourth and apical fifth, reddish; first segment of anterior four tarsi ferruginous reddish. Pile pale, the tibiae and

tarsi with black hairs above.

Wings pale luteous on basal half, lightly infuscated beyond the middle but becoming greyish apically and posteriorly; apical crossvein strongly oblique except on base and apex. Squamae white; halteres yellow.

Abdomen shining black, the second and third segments subopaque, except that the sides and large anterior triangles are shining; pile fairly long, whitish or pallidly yellowish; each segment with a large apical triangle of appressed black pile reaching well across the segment but not extending to the base.

Holotype—♀, Low Bush, Lake Abitibi, Ont., June 16, 1925, (N. K. Bigelow); No. 1800 in the Canadian National Collection.

***Chilosia bigelowi* n. sp.**

Belongs to the *aldrichi* group which is characterized by a strong angulation of the anterior coxae near the base of the outer anterior margin; differs from the described species in having the frontal and vertical triangles black pilose and large black pilose triangles on the second and third abdominal segments, etc. Length, 10 mm.

Male. Shining black, the second and third abdominal segments chiefly opaque. Face moderately concave above, the oral margin almost as prominent as the antennal base, the tubercle large, obtuse, and very prominent; face produced slightly downwards, thinly greyish yellow pollinose, thickly so above and on the lateral margins. Front much wider than long, gently convex on each side of the deep median sulca; pile black; lunula black. Vertical triangle rather small, longer than wide, black pilose; occipital cilia black, long; eyes, occiput and face with pale yellowish pile. Antennae reddish, the third segment above and the second almost wholly, brownish red to brownish, the first black; third segment as broad as long, convex apically and ventrally, the corners rounded; arista brown, as long as frontal width.

Thorax and scutellum shining greenish black, pale yellowish-cinereous pilose, the mesonotum and scutellum with numerous long scattered black hairs.

Femora black with reddish apices; anterior four tibiae reddish with the sub-apical fourth or more brown, the posterior tibiae black with the basal fourth and apical fifth more or less reddish; anterior four tarsi reddish with the apical two or three joints blackish, the posterior tarsi black with the apex of the first and the two following segments brownish red. Pile of legs pale with the tarsi and most of the tibiae black haired above.

Wings lightly infuscated, paler behind; apical cell obtuse apically. Squamae white with yellowish border and fringe. Halteres yellow with fuscous knob.

Abdomen with the second and third segment sub-opaque, the sides broadly shining, the pile fairly long, pallidly yellowish, the second and third segments each with a large triangle of appressed black pile, which occupies the opaque portion of the segment posteriorly but hardly reaches the base in the middle.

Holotype—♂, Low Bush, Lake Abitibi, June 14, 1925, (N. K. Bigelow); No. 1798 in the Canadian National Collection, Ottawa.

Paratype—♂, Long Point, Lake Abitibi, June 10, 1925, (Bigelow); in Royal Ontario Museum.

LONCHAEIDAE

***Lonchaea watsoni* n. sp.**

Traces to couplet 23 in the key by Malloch and McAtee (Proc. U.S.N.M., lxxv, Art. 12, 1925) but differs from *coloradensis* in having the upper frontal orbits polished and the third antennal segment only about one and one half times as long as wide; differs from species following in the short third antennal segment. Length, about 4 mm.

Male. Head dull black; upper frontal orbits blue-black, the ocellar region bronze-black. Face greyish pollinose, the oral margin somewhat produced. Cheeks with long hairs below, short ones behind. Front narrow, about one fourth as wide anteriorly as its length, broadened above; only a few hairs on median portion of anterior half; lunula hairy. Antennae black, greyish pollinose, the third segment reddish at base below, about one and one half as long as wide; arista practically bare; palpi black.

Thorax and abdomen steel blue; pteropleura bare; no hairs near stigmalal bristle; scutellum with many long marginal hairs; hair of thorax long.

Legs black; knees narrowly brownish red; tarsi yellow becoming brownish apically.

Wings tinged with yellow. Squamae whitish with pale yellowish border and white fringe. Halteres brown or black.

Abdominal hair long except on disc of basal segments. Genitalia brown.

Holotype—♂, Frater, Ont., June 11, 1925 (E. B. Watson); No. 2031 in the Canadian National Collection, Ottawa.

Paratypes—5 ♂, same data; 5 ♂, Frater, June 16.

MUSCIDAE

***Morellia pulchra* n. sp.**

Related to *M. aenescens* Desv. Posterior tibiae curved as in *aenescens* the middle femora with preapical swelling above bearing numerous bristles, many of which are one and one half times as long as thickness of the femora, the middle tibiae much narrowed on basal seventh, followed by a large, fairly prominent antero-dorsal tubercle bearing many short bristles the length of which is over half the thickness of the tibia at point of attachment, the tibia thence of almost even thickness, although slightly narrowed to the apical fifth. Otherwise very much as in *M. micans* Macq. Blue-black. Length 9 to 10 mm.

Male. Face and lower third of parafrontals silvery-white, the facial depression more argenteous; cheeks and occiput black, thinly gray pollinose, the latter more brownish pollinose above. Palpi and antennae black, the third antennal segment brownish gray pollinose; rays of arista longer than width of third antennal segment. Width of front about equal to twice the length of the slightly elongate ocellar triangle; the black frontal vitta linear except above and below, about as wide in front as parafrontal opposite. Frontal bristles fairly strong, two pairs of stronger orbitals, the upper one situated in frontal row but proclinate instead of decussate; ocellar bristles not developed, the hairs forming two divergent rows. Hair of head wholly black; facial ridges with hairs to above middle.

Mesonotum with the broad, median white pollinose vitta reaching the posterior fourth, becoming faint posteriorly, the humeri and notopleura similarly pollinose, the pleura with grayish pollen. Two or three very weak anterior acro-

sticals usually evident; three anterior and four posterior dorso-centrals; two or three posterior acrosticals, the anterior pairs weak and but little developed; a single intra-alar; pre-alar about one third as long as following bristle; post-humeral strong. Three sterno-pleurals, the second weak, a little below the others and nearer the posterior one. Three pairs of marginal scutellars, the apical decussate pair stronger and two or three pairs of fine discals. Scutellum thinly grey pollinose, the lower edge thickly so.

Legs black, only the immediate tips of the femora and bases of the tibiae reddish. Anterior tibiae with complete antero-dorsal row of short bristles, and with four to six long bristles postero-ventrally on apical two-thirds, the hair conspicuous and at most subappressed on lower surface. Middle femora with five or six small bristles on basal third of postero-ventral edge, strongly constricted on the apex beyond the large, low tubercular swelling bearing the black bristles, above with a row of rather strong black bristles on whole length of antero-dorsal edge, the hair on posterior surface fairly long and somewhat outstanding, especially so apically. The middle tibia bears an antero-dorsal row of tiny bristles directed towards the upper edge and a row of six to eight strong posterior bristles on basal three fourths. Posterior femora with an antero-ventral row of short bristles, the apical two or three becoming strong, the postero-ventral surface without bristles. Posterior tibiae with an entire row of long, fine antero-dorsal bristles, strong calcar and two or three weaker sub-basals on postero-dorsal surface and row of shorter bristles on apical two thirds of antero-ventral edge. First two segments of posterior tarsi with a double row of black bristles on the antero-ventral surface, the outer ones shorter than the thickness of the organ, the inner row distinctly longer, but not densely covered as in *aenescens*. Claws not as long as terminal tarsal segment, the whitish pulvilli not half as large as same segment.

Wings cinereous hyaline, slightly darker in front; veins and costal cell to well beyond humeral crossvein, black.

Abdomen, from posterior view, moderately greyish or whitish pollinose with narrow median vitta and segmental apices bare, the venter thickly pollinose. Hair and bristles wholly black.

Female. Ocellar-bristles strong, divergent; a single strong orbital with several weak ones in a row above; front narrowed anteriorly and slightly so above, at widest part hardly four fifths as wide as eye; pale pollen extending up almost to the middle; width of parafrontal opposite the orbital equal to twice the width of the ocellar triangle; third antennal segment broad, not one and three fourths as long as wide, arisal rays shorter than its width. Only the costa black, the other portions of wing described as black in ♂, brown. Terminal abdominal segment densely silvery white pollinose. Legs simple, the posterior tibia scarcely curved.

Holotype—♂, Low Bush, Lake Abitibi, Ont., July 11, 1925, (N. K. Bigelow); No. 1946 in the Canadian National Collection, Ottawa.

Allotype—♀, same locality, June 30, 1925.

Paratypes—♂, 3♀, July 6; ♂, 3♀, July 8; 2♂, ♀, June 12, ♀, June 30, 3♂, Aug. 10, 1925, (N. K. Bigelow). ♂, Onah, Man., Aug. 17, 1925, (R. M. White). Paratypes in Royal Ontario Museum, Toronto. The

Manitoba specimen was reared from Moose dung and the species probably breeds only in this media.

The female may be separated from *M. micans* by the much wider third antennal segment and the width of the parafrontals, the width of these being only equal to the width of the ocellar triangle in *micans*.

TACHINIDAE

***Arctophyto algens* n. sp.**

In my key to the species of *Arctophyto* (Can. Ent., lvi, 302, 1924) traces out to *marginalis* n. sp., from which it is at once distinguished by the front of the male being only slightly narrower than one eye and bearing three orbital bristles, the female being distinguished by the presence of (usually) three pairs of orbitals, leather-like parafacials and much wider cheeks (bucca) these being two thirds the eye-height instead of only one half. The claws and pulvilli are short, facial carina moderately strong, obsolete below, the oral margin not strongly produced. Length, 7 to 9.5 mm., the average about 8.5.

Male. Parafacials over half as wide as eye, the usual soft area separating cheeks and face leather reddish, extensive, the head elsewhere black; half the head lies below the eyes; pollen of face not conspicuous, greyish, the parafacials appearing "leathery;" greatest width of facial depression equal to one and one half times parafacial. Frontal vitta deep brown, almost or quite as wide as the thinly gray pollinose parafrontals; frontal bristles of moderate strength, more or less decussate; ocellars strong, the hairs behind bristly; outer verticals two thirds as long as verticals. Occiput convex, especially below, together with the cheeks rather thinly grey pruinose; median portion with pale hair. Vibrissae strong, the accompanying bristles fairly long and numerous. Palpi brown on apical third or more, reddish basally, somewhat thickened apically. Antennae wholly black, the third segment with yellowish grey pollen, only a little longer than the second. Arista black, thickened on basal fifth, strongly pubescent.

Thorax, abdomen and legs black. Thorax grey pollinose, the vittae narrow but distinct; from anterior view with three broad blackish vittae. Three posterior dorso-centrals and sternopleurals; three strong marginal scutellars the apical pair decussate, a pair of moderately strong discal scutellars.

Wings greyish hyaline or lightly infumated, always conspicuously dark basally. Apical cell narrowly open or closed in wing margin the length of the small crossvein before the tip. Squamae white with brown rim, the lower lobe sometimes with brownish yellow rim. Halteres reddish on basal half, elsewhere brown.

Abdomen shining black, the basal half of the second and following segments greyish white pollinose, the pollen extending in the middle almost to the apex of the segment and somewhat tessellate from different views. First and second segments each with pair of marginals, the third with a complete row, fourth with a row of bristles behind the middle and row of hair-like marginals.

Female. Unusually like the male. The palpi are rather strongly widened on apical fourth and usually brownish red with blackish apex and lower edge. Apical bristles on fourth abdominal segment stronger.

Described from more than 200 specimens of both sexes collected by Mr. N. K. Bigelow at Lake Abitibi, Ontario 1925, on the following dates: 49, July 3,

♂, July 10; 2♂♀, July 11; ♀, July 13; 3♀, July 17; 3♂, 8♀, July 18, 12♂, 37♀, July 19; 14♂, 12♀, July 20; 13♂, 36♀, July 21; 12♂, 35♀, July 23; 2♀, Aug. 1; ♀, Aug. 8; ♂, Aug. 12.

Holotype—♂, Aug. 19, 1925; No. 1944 in the Canadian National Collection, Ottawa.

Allotype—♀, same data.

Paratypes in Royal Ontario Museum, Toronto, and U. S. National Museum, Washington, D. C.

***Hylotomomyia buckelli* n. sp.**

Differs from *H. hylotomae* Coq. (*Admontia*) by the absence of small apical scutellars, the front pulvilli shorter than apical tarsal segment, wings blackish or brownish basally, and hind tibiae not sub-ciliate. Length, 7.5 mm.

Male. Black, the palpi reddish. Head argenteous pollinose. Parafacials almost as wide as length of second antennal segment, bearing black hairs on lowest three-fifths, the upper part bare; facial depression hardly twice as wide as parafacial; ridges with four or five bristles on lower fourth. Front five sevenths as wide as eye, the blackish frontal vitta twice as wide as parafrontal at upper third, of almost equal width throughout; two or three of upper frontals reclinate, the others cruciate, a row of hairs outside the frontals; ocellars and postocellars strong; outer verticals well developed; width of cheeks equal to fourth-ninths the eye-height. Antennae reaching below lowest fourth of face, the third segment not as wide as second, but little over one and one-half times as long; arista thickened on basal fourth, tapering, microscopically pubescent.

Thorax thinly greyish pollinose, the dark vittae broad, more or less fused behind the suture. Three pairs of anterior acrosticals, the posterior pair close to suture; two pairs of anterior dorso-centrals; three sub-laterals; post-humeral strong. Posterior bristles composed of three pairs of dorso-centrals, acrosticals and intra-alars. Sternopleurals 2:1; propleura bare; infra-squamal spinules absent. Scutellum with three pairs of marginals, the second pair weak, the third pair divergent, apicals wholly wanting; a pair of weak discals.

Pulvilli three-fourths as long as fifth tarsal segment, luteous tinged. Front tibiae with two posterior bristles.

Wings brownish tinged on basal third in front; otherwise cinereous-hyaline. Third vein with one or two basal bristles; apical cell ending well before wing-tip.

Basal fourth to one-third of the apical three abdominal segments whitish pollinose, conspicuously interrupted in the middle. First and second segments with pair of strong marginals, the second with a row of weaker marginals; second and third segments with one or two pairs of discals; third with row of strong marginals, the fourth with two rows of discals and row of weaker marginals. Bristles of thorax and abdomen long; hairs of abdomen rather long, sub-appressed.

Holotype—♂, Osoyoos, B. C., May 16, 1924, (E. R. Buckell); No. 1952 in the Canadian National Collection, Ottawa.

I am indebted to Dr. J. M. Aldrich for the determination of this species as new. I was unable to associate it with the genotype as it does not trace out to *Admontia*, in which genus Coquillett placed *hylotomae*.

***Paralipse aldrichi* n. sp.**

Black; eyes bare. Distinguished from all described species by the presence of strong ocellar bristles. *P. assimilis* Tns. is described as having "moderately strong" ocellars but has the parafacials as wide as facial depression and two pairs of orbitals. Length, 8.5 to 9.5 mm.

Male. Front approximately one-third head width, (four fifths as wide as eye), parafrontals and parafacials with brownish yellow pollen having strong brassy or golden reflection; facial depression and occiput grey pollinose, the posterior orbits more or less yellow. Facial ridges with fine bristles on lower three fourths; parafacials narrow, strongly tapering below; frontal vitta narrower than parafrontals; a single very strong orbital and several bristly hairs outside frontal row; outer verticals almost two-thirds as long as verticals. Back of head with white hair but none is visible from in front. Palpi brownish with the apical half or less luteous. Antennae black, third segment a little more than twice as long as second, its sides parallel, the apex truncate; arista distinctly pubescent.

The thorax is greyish or greyish-yellow pollinose, the four vittae distinct, the inner pair linear, the outer very broadly interrupted, a fifth (median) vitta behind the suture. Three anterior and posterior acrosticals; two anterior, three posterior dorso-centrals; three sub-laterals, the post-humeral also developed; two sternopleurals. Hair of thorax black; propleura bare; infra-squamal spinules present, scutellum grey pollinose with basal black triangle; three pairs of strong marginals and hair-like, decussate apical pair.

Legs black, femora thinly greyish pollinose; middle tibiae with three antero-dorsal bristles on apical half, the basal one strongest. Pulvilli short.

Wings greyish hyaline, more or less yellowish on basal half in front; fairly broad, the apical cell open, ending moderately before wing tip; third vein bristled over half way to small crossvein.

Abdomen black; second to fourth segments greyish white pollinose with the apical third, increasing to half in the middle of the second and third segments, bare. First and second segments with pair of marginals, second and third with pair of discals, the latter with row of marginals; fourth with row of discals and marginals. Posterior genital forceps with deep median groove on whole length, furcate on apical third. Fifth sternite rectangularly divided in middle.

Holotype—♂, Aylmer, Que., Aug. 8, 1924, (Curran); No. 1965 in the Canadian National Collection, Ottawa.

Paratypes—♂, same data; ♂, Aylmer, July 17, 1924, (Curran), the latter deposited in the U. S. National Museum.

Doctor J. M. Aldrich, for whom this insect is named, determined this species as new.

In Ann. Ent. Soc. Am., XVIII, 113, 1925, Dr. Aldrich has discussed the genus *Paralipse* B. B. and has placed the following names in the synonymy. *Paralipse* B. B. Denkschr. Akad. Wissen., Wien, lviii, 337, 1891. (*brasiliensis* B. B. [n. n.]).

Metadoria B. B. Denkschr. Akad. Wissen., Wien, lx, 117, 1893 (*barbata* Big. as *mexicana* n. sp., p. 208).

Stomatolydella Tns. Proc. U. S. N. M., lvi, 570, 1919, (*infernalis* Tns. n. sp.).

Austrolydella Tns. Proc. U. S. N. M., lvi, 573, 1919, (*assimilis* Tns. n. sp.).

? *Paradoria* B. B. Denkschr. Akad. Wissen., Wien, lviii, 339, 1891, (*nigra* B. B. n. sp.)

The first four bear discal bristles, the last named lacks them; all have hairy eyes. There seems to be little doubt about the synonymy of the first three but the parafacials of *Austrolydella* are described as nearly as broad as the facial depression which would seem to indicate that it is a valid genus unless there are intergrading forms and the type of this genus also bears well developed ocellars, a character absent in the other four. The species described here has narrow parafacials, strong ocellars, bare eyes and discal bristles which would seem to indicate that it is also different from the remainder. The following table indicates the relationships, although all the characters may intergrade:

- | | |
|---|----------------------------------|
| 1. Discal bristles absent on second and third segments, | <i>Paradoria</i> B. B. |
| Discals present | 2. |
| 2. Ocellar bristles well developed | 3. |
| Ocellars absent (<i>Metadoria</i> B. B., <i>Stomatolydella</i> Tns.) | <i>Paralipse</i> B. B. |
| 3. Parafacials over one half as wide as facial depression; eyes hairy | <i>Austrolydella</i> Tns. |
| Parafacials very narrow below; eyes bare, | <i>Paralipse aldrichi</i> Curran |

A NEW HAPLOPTILIA (COLEOPHORA) FROM SWEET FERN (LEPID.).*

BY J. MCDUNNOUGH,
Ottawa, Ont.

In June, 1925 I collected several cases of a *Haploptilia* species from sweet fern (*Comptonia*) at Sparrow Lake, Ont.; adults emerged in July and on submitting them to Mr. C. Heinrich for identification I was informed that the species was new, closest to *lentella* Heinrich, but smaller and differing in male genitalia. I therefore offer the following description.

Haploptilia comptoniella n. sp.

Larval case typical cigar-shaped (see Forbes, Lep. N.Y., p. 204, fig. 127b) with a more or less developed dorsal ridge or tooth and flattened posterior end; smooth, brown, 7-8 mm. long.

Adult. Palpi pale creamy, tinged with brownish exteriorly, head and thorax light creamy; antennae with slight tuft on second joint, whitish, broadly ringed with brown; forewings golden-brown with costal area from base to near apex broadly whitish; hindwings smoky; legs light brown. Expanse 10 mm. In the male genitalia the dorsal arm of the clasper is rather short ($1/3$ total length) and hammer-shaped at extremity; the ventral arm is broad and has the sacculus broad for two-thirds the distance to apex, then narrowing rather abruptly and extending along the ventral margin as a chitinous rod which terminates at the apex of clasper in a rather sharp point; directly behind this point is another similar projection.

Holotype—♂, Sparrow Lake, Severn, Ont., July 17, 1925, (J. McDunnough); No. 2308 in the Canadian National Collection, Ottawa.

Allotype and *Paratypes*—4 ♀, same locality, July 16, 17, 19, in the Canadian National Collection and United States National Museum.

*—Contribution from the Division of Systematic Entomology, Entomological Branch, Dept. Agric., Ottawa.

A PRELIMINARY REVISION OF THE CAMPOPLEGIINAE IN THE
CANADIAN NATIONAL COLLECTION, OTTAWA.

BY HENRY L. VIERECK,

Ottawa, Ont.

(Continued from page 201)

Campoplex (Hyposoter) occidentali n. sp.Related to *C. (H.) oedemasiae* Ashmead.

Female. Length 7 mm.; black, antennae black throughout, mandibles mostly yellow, palpi yellowish stramineous, tegulae yellowish with a nearly colorless margin, coxae black, trochanters yellowish excepting the hind proximal trochanters which are mostly black, rest of fore and mid legs mostly stramineous, their tibiae yellowish on the extensor surface, apical joints of fore and mid tarsi blackish, hind femora reddish, flexor surface of hind tibiae stramineous except for the blackish apical band, rest of hind tibiae with a broad blackish basal and apical band, yellowish-white in between, hind tarsi blackish, the first and second joints pale at base, abdomen black, sides of third, fourth and fifth tergites partly reddish, plica mostly yellowish; areola at base and on the sides bounded by trenchant carinae, narrowly truncate at base, partly finely reticulate, petiolarea; abdomen clavate, sheaths of the ovipositor with their exerted portion nearly as long as the third tergite.

Holotype—♀, Waterton Lakes, Alta., July 18, 1923, ex *Oidaematophorus occidentalis* Wals. (J. McDunnough); No. 1708 in the Canadian National Collection, Ottawa.

Campoplex (Hyposoter) parallellus n. sp.Related to *C. (H.) occidentali* Viereck.

Female. Length 5 mm.; compared with the original description of *C. (H.) occidentali* Vier. this differs as follows. Hind femora blackish at base, hind tibiae blackish, near base and at apex whitish, yellow at base and in the middle, hind tarsi blackish with the basal two-thirds of the basitarsi whitish yellow, abdomen black, long, finely reticulated, petiolarea transversely costate; exerted portion of sheaths a little longer than half the length of the abdomen.

Holotype—♀, Hull, Que., Sept. 25, 1923, (C. H. Curran); No. 1707 in the Canadian National Collection, Ottawa.

Campoplex (Hyposoter) comptoniellae n. sp.Related to *C. (H.) oedemasiae* Ashmead.

Female. Length 7 mm.; black, scape and pedicel brownish in front, mandibles mostly yellow, palpi whitish yellow, tegulae whitish yellow, fore and mid coxae and trochanters whitish yellow, hind coxae reddish, their proximal trochanters stramineous, their distal trochanters yellowish, hind femora reddish, their tibiae whitish on the flexor surface except apically, where they are blackish, elsewhere black near base and at apex, whitish at base and in the middle, hind tarsi black, basal two-thirds of their basitarsi whitish, second joint pale at extreme base, fore and mid femora reddish, their tibiae stramineous with the extensor surface mostly whitish, fore tarsi stramineous with the extensor surface whitish, to the end joint which is brownish, mid tarsi yellowish, faintly brownish at apex of the joints, mid apical tarsal joint blackish, abdomen black, plica blackish with yellowish margins; areola obtuse angled at base, nearly as wide as

the petiolarea in the middle, finely sculptured, confluent with the concave transversely wrinkled petiolarea, abdomen obliquely truncate, sheaths of the ovipositor nearly twice as long as the truncature.

Male. Characters essentially as in the female.

Holotype—♀, Wakefield, Que., July 25, 1924, ex *Acrobasis comptoniella*, (J. McDunnough); No. 1706 in the Canadian National Collection, Ottawa.

Allotype—♂, data the same.

Paratypes—3 ♂ 8 ♀, one with data the same, the others Sparrow Lake, Ont., June 29, 1925, June 20, 1925, ex *Acrobasis alniella* McD. (J. McDunnough).

Cocoons free, solitary, whitish, with the blackish layer showing through in places.

Campoplex (Hyposter) stenus n. sp.

Related to *C. (H.) comptoniellae* Viereck.

Male. Length 6 mm.; compared with the original description of *C. (H.) comptoniellae* Vier. this differs as follows. Scape yellowish in front, fore and mid legs stramineous throughout, hind trochanters yellowish, hind tibiae blackish at base, their tarsi black, pale at extreme base of their basitarsi, extensor surface of fore and mid tibiae and their tarsi whitish, mid tarsi with the apical joint blackish, plica yellowish, apical third of second tergite mostly yellowish, third and fourth tergites mostly reddish, black at base, the third blackish at apex laterally, fifth and following tergites reddish, laterally on the lower edge; areola acutely angular at base, longer than wide, finely reticulated, confluent with the petiolarea, the latter more sculptured.

Holotype—♂, Hull, Que., May 26, 1925, (R. Ozburn); No. 1705 in the Canadian National Collection, Ottawa.

Campoplex (Hyposoter) laticeps n. sp.

Related to *C. (H.) paenesessilis* Viereck.

Female. Length 6 mm.; compared with the original description of *C. (H.) occidentali* Vier. this differs as follows. Fore coxae yellowish at apex, fore and mid femora more or less reddish, flexor surface of hind tibiae reddish, rest of hind tibiae pale yellowish at base and in the middle, brownish near base and blackish at apex, abdomen black excepting a narrow apical stramineous edge to the tergites and a partly yellow plica; carinae defining the areola not trenchant, areola narrowly truncate at base, apparently as wide as long, nearly polished, confluent with the rugulose petiolarea, exerted portion of the sheaths of the ovipositor over half as long as the abdomen.

Holotype—♀, Victoria, B. C., July 8, 1919, (W. Downes); No. 1712 in the Canadian National Collection, Ottawa.

Paratypes—2 ♀, Saanich, B. C., June 22, 1918, (W. Downes): Banff, Alta., Oct. 3, 1922, (C. B. D. Garrett).

In the paratype from Saanich the areola is acutely angular at base, in the other paratype it is nearly acutely angular.

Campoplex (Hynosoter) pygmaeus n. sp.

Related to *C. (H.) laticeps* Viereck.

Female. Length 4 mm.; compared with the original description of *C. (H.) occidentali* Vier. this differs as follows. Flexor surface of hind tibiae reddish, elsewhere whitish at base and in the middle, blackish near base and at apex, ab-

domen black, plica partly yellowish; areola defined by delicate carinae, acutely angular at base, finely sculptured, apparently as long as wide, confluent with the seemingly transversely lineolate petiolarea; abdomen truncate; the sheaths of the ovipositor apparently twice as long as the apical truncature.

Holotype—♀, Oliver, B. C., May 19, 1923, (C. B. D. Garrett); No. 1713 in the Canadian National Collection, Ottawa.

Campoplex (Hyposoter) minutus n. sp.

Related to *C. (H.) pygmaeus* Viereck.

Female. Length 4 mm.; compared with the original description of *C. (H.) occidentali* Vier. this differs as follows. Hind tibiae with their flexor surface reddish, elsewhere mostly yellowish stramineous, hind basitarsi mostly pale, abdomen black, first and second tergites with a stramineous apical edge, plica yellowish brown; areola acutely angular at base, its sides forming almost a straight line with the sides of the petiolarea, areola and petiolarea finely sculptured, the latter slightly concave; abdomen obliquely truncate, sheaths of the ovipositor apparently a little more than twice as long as the truncature.

Holotype—♀, Okanagan Valley, B.C., No. 1714, in the Canadian National Collection, Ottawa.

Campoplex (Hyposoter) petiolatus n. sp.

Related to *C. (H.) occidentali* Viereck.

Female. Length 6 mm.; compared with the original description of *C. (H.) occidentali* Vier. this differs as follows. Scape and pedicel pale in front, pedicel pale at apex in front, tubercles pale, fore legs, including coxae and trochanters, dark stramineous, extensor surface and their tibiae yellowish, apical joint of fore tarsi concolorous with the other tarsi, flexor surface of hind tibiae reddish, extensor surface of hind tibiae blackish at apex and near base, yellowish at base, stramineous in the middle, extreme sides of second, and most of sides of third tergites, brownish stramineous, carinae bounding the areola well developed, areola acutely angular at base, longer than wide, nearly polished, confluent with the transversely costate petiolarea; abdomen truncate, sheaths of the ovipositor apparently two and one-half times as long as the apical truncature.

Holotype—♀, Trenton, Ont., Sept. 10, 1906, (Evans); No. 1709 in the Canadian National Collection, Ottawa.

Campoplex (Hyposoter) curtus n. sp.

Related to *C. (H.) petiolatus* Viereck.

Female. Length 5 mm.; compared with the original description of *C. (H.) occidentali* Vier. this differs as follows. Fore coxae mostly yellowish, brownish at base internally, mid coxae black, yellowish at extreme apex, extensor surface of fore and mid tibiae with a rudimentary yellowish streak, hind femora on the outer aspect obscurely blackish at base, flexor surface of hind tibiae reddish, rest of hind tibiae whitish at base and in the middle, blackish near base and at apex, abdomen black, sides of third tergite partly obscurely brownish; areola acutely angular at base, apparently as wide as long, nearly polished, indefinitely sculptured, confluent with the transversely costate petiolarea; abdomen truncate, exerted portion of ovipositor longer than the apical truncature.

Holotype—♀, Montreal, Que., Jan. 24, 1917, (J. I. Beaulne); No. 1710 in the Canadian National Collection, Ottawa.

Campoplex (Hyposoter) paenesessilis n. sp.

Related to *C. (H.) curtus* Viereck.

Female. Length 5 mm.; compared with the original description of *C. (H.) occidentali* Vier. this differs as follows. Hind distal trochanters stramineous, fore and mid tibiae stramineous throughout, flexor surface of hind tibiae reddish, rest of hind tibiae yellowish at base and in the middle, blackish near base and at apex, abdomen black throughout above, areola apparently as wide as long, petiolarea transversely costate; abdomen truncate, sheaths of the ovipositor apparently twice as long as the truncature.

Holotype—♀; Ottawa, Ont., July 26, 1924, (C. H. Curran); No. 1711 in the Canadian National Collection, Ottawa.

Campoplex (Hyposoter) oblitteratella n. sp.

Related to *C. (H.) minutus* Viereck.

Female. Length 5 mm.; compared with the original description of *C. (H.) occidentali* Vier. this differs as follows. Scape and pedicel in front partly pale, fore coxae stramineous and yellowish, with a black mark on their upper aspect, mid coxae reddish, blackish at base above, extensor surface of fore tibiae apparently not yellowish, the same surface of mid tibiae hardly yellowish, mid femora reddish, apical joint of fore tarsi pale, the same joint of mid tarsi dark, flexor surface of hind tibiae reddish, rest of hind tibiae dark stramineous, brownish near base and at apex, abdomen black above with an apical stramineous margin to the third tergite; areola well defined, its carinae, however, not trenchant, confluent with the nearly transversely costate petiolarea; abdomen truncate, ovipositor nearly as long as the abdomen.

Holotype—♀, Agassiz, B. C., August 1, 1921, (R. Glendenning); No. 1715 in the Canadian National Collection, Ottawa

Campoplex (Hyposoter) triangularis n. sp.

Related to *C. (H.) oblitteratella* Viereck.

Female. Length 5 mm.; compared with the original description of *C. (H.) occidentali* Vier. this differs as follows. Palpi whitish, fore coxae pale at apex, end joint of fore tarsi and all of mid tarsi mostly blackish, mid tibiae reddish on the flexor surface, blackish near base and at apex on the extensor surface, the same surface yellowish at base and in the middle, hind femora blackish at base and apex, their tibiae and tarsi colored like the mid tibiae and tarsi but darker, abdomen black throughout above; carinae defining the areola not trenchant, areola acutely angular at base, nearly polished, confluent with the transversely lineolate petiolarea, exerted portion of sheaths of ovipositor a little more than half as long as the abdomen.

Holotype—♀, Ottawa, Ont., Oct. 26, 1924, (H. L. Viereck); No. 1716 in the Canadian National Collection, Ottawa.

Campoplex (Hyposoter) Foersteri.

(*Limnerium*) *Campoplex (Hyposoter) basilaris* Provancher.

(*Amorphota*) *Campoplex (Hyposoter) confluens* Viereck.

(*Limnerium*) *Campoplex (Hyposoter) oedemasiae* Ashmead.

Campoplex (Bathyplectes) phytonomi n. sp.

Related to *B. stemankiakorum* Viereck.

Male. Length 3 mm.; black, antennae virtually black throughout, basal half of mandibles black, the apical half rather pale, tegulae black, coxae black, trochanters mostly black, fore femora yellowish, blackish at base, their tibiae yellowish, their tarsi brownish, mid femora black, yellowish at extreme apex, their tibiae blackish, with the extensor surface yellowish at base and in the middle, mid tarsi black, hind legs colored like the mid legs, abdomen black with a yellow plica, first and second tergites apically with a yellowish edge to the former and a yellowish border to the latter; areola truncate at base, nearly polished, confluent with the finely sculptured petiolarea, lateral carinae of areola and basal lateral carinae of petiolarea forming straight line.

Female. Characters essentially as in the male; abdomen clavate, exerted portions of sheaths apparently half as long as the abdomen.

Holotype—♂, Ottawa, Ont., June 19, 1899, ex? *Phytonomus nigrirostris* (A. Gibson); No. 1717 in the Canadian National Collection, Ottawa.

Allotype—♀, Montreal, Que., May 19, 1915. (J. I. Beaulne).

Paratypes—1 ♀, 3 ♂, Ottawa, Ont., July 21, 1894, (W. H. Harrington); Prince Edward Co., Ont., May 24, 1890, (Evans); Agassiz, B. C., May 14, 1921, (R. Glendenning).

***Campoplex (Bathyplectes) bryanti* n. sp.**

Related to *B. phytonomi* Viereck.

Female. Length 4 mm.; compared with the original description of *C. (B.) phytonomi* Vier. this differs as follows. Mandibles mostly reddish, black at base, distal trochanters dark stramineous, fore femora brownish stramineous, yellowish at apex, their tibiae and tarsi paler, mid femora black, the apical half from brownish to yellowish, their tibiae and tarsi colored much like the fore tibiae and tarsi, hind femora black, brownish and yellowish at apex, their tibiae brownish stramineous, their tarsi mostly dark, abdomen black, plica yellowish, apical edge of tergites stramineous; areola and petiolarea almost uniformly rugulose and somewhat wrinkled, lateral carinae of areola and basal lateral carinae of petiolarea forming a curved line, ovipositor nearly as long as the abdomen.

Holotype—♀, Bilby, Alta., July 1, 1924, (O. Bryant); No. 1718 in the Canadian National Collection, Ottawa.

Named in honor of Mr. O. Bryant.

Campoplex (Bathyplectes) Foerster).

(*Canidiella*) *Campoplex (Bathyplectes) lucta* Davis.

***Campoplex (Hypothereutes) impetitus* n. sp.**

Related to *C. (H.) elyi* Viereck.

Female. Length 6 mm.; black, scape brownish apically, pedicel yellowish apically, mandibles mostly yellowish, palpi dark stramineous, tegulae yellow, coxae black, the fore and mid pair stramineous at apex, the mid pair, in addition, brownish beneath, trochanters dark stramineous to brownish excepting the hind proximal pair which are mostly black, rest of fore and mid legs mostly dark stramineous, their apical tarsal joints blackish, hind femora reddish, blackish at apex, flexor surface of hind tibiae reddish, elsewhere brownish stramineous with a blackish stain near base and at apex, hind tarsi mostly blackish, abdomen black, plica partly black, partly yellow; areola broadly truncate at base, confluent with the petiolarea with which it is uniformly finely sculptured, lateral carinae of areola and

petiolarea nearly forming a straight line, their junction marked by an obtuse angle; abdomen truncate, the ovipositor apparently not as long as the truncature.

Holotype—♀, Brule River Camp, Riordan Limits, Que., July 31, 1918; No. 1719 in the Canadian National Collection, Ottawa.

Campoplex (Hypotherentes) clarus n. sp.

Related to *C. (H.) vernalis* Viereck.

Female. Length 7 mm.; black, scape and pedicel pale in front, mandibles yellowish, brownish red at apex, palpi yellowish, tubercles and tegulae yellow, the latter with a nearly colorless margin, fore and mid coxae and trochanters yellowish, hind coxae reddish, their trochanters brownish, stramineous, femora reddish, the fore pair palest, yellowish at apex and with the extensor surface stramineous, fore and mid tibiae stramineous, their extensor surface yellowish, fore and mid tarsi yellowish, hind tibiae dark stramineous, hind tarsi brownish, abdomen reddish save for the narrow part of the petiole which is black and the plica which is yellowish; areola truncate at base, hardly defined beyond the costulae, petiolarea poorly defined, the confluent areola and petiolarea uniformly rugose excepting the base of the areola which is not coarsely sculptured; abdomen truncate, the ovipositor apparently a little longer than the truncature.

Holotype—♀, E. Ont.; No. 1720 in the Canadian National Collection, Ottawa.

Paratype—♀, Ottawa, Ont., (W. H. Harrington).

Campoplex (Hypcthereutes) acceptus n. sp.

Related to *C. (H.) exiguae* Viereck.

Female. Length 6 mm.; black, scape and pedicel mostly yellowish with a blackish stripe behind, mandibles mostly yellow, palpi yellowish, tubercles and tegulae yellow, the latter with a nearly colorless margin, fore legs including coxae and trochanters yellow like the mid legs excepting the end tarsal joint which is pale brownish and the mid femora which, save for the yellow extensor surface, are reddish, hind coxae and femora reddish, their tibiae yellowish, blackish at base and brownish and reddish at apex, hind trochanters yellow, hind tarsi brownish, their basitarsi pale at base, abdomen black, a narrow apical border to the first tergite, apical half of second, all but extreme base of third, sides and apical margin of fourth and lower half of the sides of the following tergites reddish; areola acutely angular at base, finely reticulated, confluent with the weakly transversely costate petiolarea; abdomen truncate, the sheaths of the ovipositor apparently as long as the apical truncature.

Holotype—♀, Winnipeg, Man.; No. 1721 in the Canadian National Collection, Ottawa.

Paratypes—2♀, Grimsby, Ont., June 3, 1894; Glen House, New Hampshire, U. S. A., July 20, 1915, (C. W. Johnson).

Campoplex (Hypotherentes) concisus n. sp.

Related to *C. (H.) acceptus* Viereck.

Female. Length 4 mm.; compared with the original description of *C. (H.) acceptus* Vier. this differs as follows. Fore coxae pale stramineous at base, their femora mostly pale reddish, mid coxae mostly pale stramineous, mid femora and tibiae reddish, the latter with their extensor surface partly yellowish white, hind femora black at apex, their tibiae yellowish to reddish with the apex black

on the flexor surface, elsewhere black at apex and near the base, pale yellowish at base and in the middle, first tergite black, the extreme apex brownish; areola nearly truncate at base, petiolarea rugulose.

Male. Differs from the female chiefly in the yellowish fore and mid legs with apical tarsal joints mostly blackish, second and third tergites black with the apical third of the second and apical two-thirds of the third mostly yellowish to reddish, the following tergites more black; areola acutely angular at base, the petiolarea hardly wrinkled but mostly finely sculptured like the areola.

Holotype—♀, Aylmer, Que., July 20, 1924, (C. H. Curran); No. 1722 in the Canadian National Collection, Ottawa.

Allotype—♂, Hull, Que., May 21, 1924, (C. H. Curran).

Paratype—♀, Aylmer, Que., June 12, 1919, (C. B. Hutchings).

(To be continued)

A NEW SAGARITIS FROM WESTERN CANADA (HYMEN.)*

BY G. S. WALLEY,

Ottawa, Ont.

Traces to *Sagaritis unicolor* Vier. in Viereck's key, (Can. Ent. LVII, 198, 1925), but differs as follows:—

Female. Length, 3 mm. Black. Antennae, coxae and abdomen black; mandibles yellowish, brown tipped; palpi whitish.

Tegulae, front, mid proximal trochanters and all apical trochanters yellowish; hind proximal trochanters blackish. Femora mostly reddish, hind femora slightly infuscated at apices behind.

Tibiae yellowish brown with fuscous bands at apices of mid tibiae and at apices and bases of hind tibiae. Apical segments of front and mid tarsi and most of hind tarsi, brownish.

Areola and petiolarea confluent, reticulate.

Male. Agrees with the female in color and markings.

Holotype.—♀, LaFleche, Sask. Aug. 13, 1926, (L. C. Page); No. 2310 in Canadian National Collection, Ottawa.

Allotype—♂ Same data as holotype.

Paratypes—♂, 4 ♀ Same data as holotype; 3 ♂, 3 ♀ Melaval, Sask. Aug. 2 to 15, 1926, (G. Stark).

The LaFleche specimens were reared from pupal cases in a head of wheat; 25 to 30 cases present in a single head of grain.

*—Contribution from the Division of Systematic Entomology, Entomological Branch, Dept. of Agric., Ottawa.

A NEW MELASIS WITH A KEY TO THE SPECIES. (COLEOPTERA).*

BY GEORGE R. HOPPING,

Vernon, B. C.

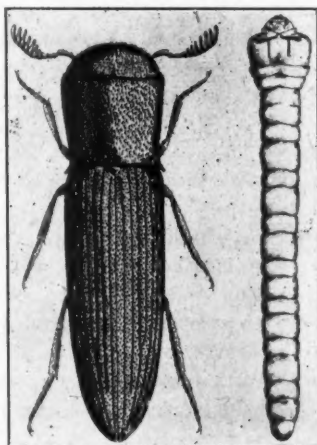
On April 24, 1926, while collecting near Pender Harbor on the coast of British Columbia, I found a hemlock windfall upon which several specimens of beetles of the genus *Melasis* were taken. Upon removing some of the bark, a considerable number of them were revealed sticking halfway out of the wood like pins in a pin cushion. It was the first real warm day of spring and they were

*—Contribution from Division of Forest Insects, Entomological Branch, Department of Agriculture, Ottawa, Ont.

emerging rapidly. A little later the log was chopped into and several larvae obtained. The sap wood was riddled with their borings, but only a limited portion of the log was attacked. During the next few weeks I came upon many hemlock windfalls but no more colonies were located. No pupae or eggs were found in the galleries. A series of 88 adults was obtained which proved to be a new species, the descriptions of which follows. The accompanying plate was made by the author.

Melasis tsugae sp. nov.

Form subcylindrical, elongate, entirely black, with the exception of the legs and antennae, which are ferruginous.



Left—*Melasis tsugae* sp. nov., adult male, actual length 9 mm., width 2.5 mm.

Right—*Melasis tsugae*, larva, ventral aspect, actual length 20.5 mm., width of first segment 2.75 mm.

Head rounded, densely but not coarsely punctate, with fine golden hairs issuing from the punctures; eyes almost round, shallowly convex, and finely granulate; front with a medial impression dividing two tumescent areas; antennae almost as long as the pronotum, pectinate in both sexes, but much more strongly so in the males; color of antennae light red brown.

Prothorax: sides almost parallel, slightly sloping posteriorly, anterior margin arcuate, posterior somewhat sinuate with a shining medial impression; disc densely and somewhat coarsely punctate, but each puncture overshadowed by a tubercle at its anterior margin, causing the surface to appear coarsely and densely tuberculate and the punctures to be overlooked; thus the fine golden hairs issuing from the punctures appear to come from the tubercles instead of the punctures behind them.

Elytra subparallel, gradually narrowing to acute apices; striae moderately deep with fine punctures; intervals convex, densely and finely punctate, appearing tuberculate for the same reason as in the prothorax, but with the tubercles smaller, producing a more granulate appearance; elytra sparsely covered with fine golden hairs.

Beneath densely and finely punctate granulose, with a fine golden pubescence.

The two blunt spines on the last ventral abdominal segment are generally coalesced in this species to form a single excrescence; femora dark red brown, tibiae lighter, and tarsi light brown.

Length 7-10 mm., width at base of elytra 2.5 mm.

Holotype—♂, Garden Bay Lake, Pender Harbor, B. C., April 24, 1926; No. 2327 in the Canadian National Collection, Ottawa.

Allotype—♀, same data as above.

Paratypes—5 ♂'s, 5 ♀'s, same data as above, in the collection of Ralph Hopping, Vernon, B. C.

This species can easily be distinguished from *M. rufipennis* Horn because it has a median impression on the front dividing two tumescent areas, instead of the transverse carina of *rufipennis*. In the latter species, the elytra are almost always brown, at least at the base, while in this new species they are always entirely black. In addition, the head and pronotal punctures of the new species are not as coarse, the striae punctures much finer. It is much more densely punctate, more granulose, and less shining on the ventral abdominal segments. In *M. rufipennis* there are two blunt spines on the last ventral segment. In *M. tsugae* these are generally coalesced to form a single truncate excrescence, but occasional specimens may be found where it is more or less divided.

M. tsugae may easily be told from the eastern species, *M. pectinicornis*, by the fact that the latter has the anterior angles of the pronotum raised into a toothed marginal ridge which is entirely lacking in the new species. In *M. pectinicornis* the front margin of the pronotum is more deeply arcuate because the angles are produced further forward. The striae punctures are finer in *M. tsugae*, and the intervals broader, less convex.

KEY TO THE SPECIES

- A. Front angles of pronotum margined by a prominent toothed ridge
..... *pectinicornis* Melsh.
- AA. Front angles of pronotum not margined by a toothed ridge.
 - B. Front with a well defined transverse carina *rufipennis* Horn.
 - BB. Front without transverse carina, but with a medial impression
dividing two tumescent areas *tsugae* n. sp.

M. pectinicornis Melsh. Length 7 mm., width 2.25 mm. This seems to be the smallest of the *Melasis*. It is either black or brown, but the brown ones may be undeveloped specimens. The anterior angles of the prothorax are more produced than in the two western species, and the elytral intervals are narrower, somewhat more convex. The toothed ridges at the anterior pronotal angles are distinctive. According to Mr. Charles Dury it breeds in beech. Two specimens are in our collection labelled "Kentucky," from Mr. Liebeck.

M. rufipennis Horn. Length 8-12 mm., width 3 mm. This is the largest of the *Melasis*. The punctures of the head, prothorax, and striae are coarser than in the other two species. The elytra are apparently always brown, if not entirely, at least the basal half. This is true of all of our series of sixteen specimens collected by my father in various parts of California. It breeds in the true firs (*Abies*) and in Douglas fir (*Pseudotsuga taxifolia*).

M. tsugae. Length 7-10 mm., width 2.5 mm. This species ranks in size between *pectinicornis* and *rufipennis*. The body is always black throughout. The

most distinctive character is the impression on the front, dividing two tumescent areas. Another one is the dense tuberculation or granulation of the pronotum and elytral intervals. It breeds in western hemlock (*Tsuga heterophylla*).

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TWO NEW CANADIAN PSYCHODIDAE (DIPT.).*

BY C. H. CURRAN,
 Ottawa, Ont.

Since my publication of descriptions of new species of Psychodidae (Can. Ent., LVI, 215-20, 1924) many additional specimens have come to hand and I present descriptions of two new species herewith.

***Psychoda (Pericoma) augusta* n. sp.**

Very large, length of wing 3.5 to 4 mm. Traces to *criddlei* Curran in my table of species and agrees with that species except as follows: The under surface of the wing bears white hair along most of the veins, these rarely reduced to the basal and apical portion of the wing. The mesonotum in front has a larger triangular area of short appressed hair and no pale hair in the collar in front. The female is very different, being chiefly white haired, the face, abdominal venter and tarsi bearing black hair, the hair between the antennae white, while the legs are mostly pale.

Holotype—♂ and *Allotype*—♀ (in coitu), Aylmer, Que., Aug. 24, 1924. (Curran); No. 2328 in the Canadian National Collection, Ottawa.

Paratypes—52 specimens of both sexes, same data.

***Psychoda (Pericoma) juno* n. sp.**

Traces to *megantica* Curran in my key, but the legs are wholly black in both sexes. Length of wing, 2.25 mm.

Male. Head, thorax and abdomen dorsally, snow white pilose; sides and venter of abdomen, a few hairs on the squamae and base and apex of antennae black haired, the antennae with mostly whitish hair. Hair of legs rather short, the long hair sparse, no long hair on tarsi; femora with short white appressed hair, blackish above apically; tibiae with appressed white hair basally and anteriorly and with white tip; tarsi with appressed black hair, slender, the tips of the first two segments silvery white. Wings with deep black hair; an incomplete, very wide band of white hair sub-basally beyond which, before the middle of the wing, the black hair is tufted, while on the apical half of the wing it is appressed. Costal fringe half as long as wing-width, posterior fringe four-fifths as long; fringe black, with strong white spots at apices of first, third and ninth veins, small one at tip of wing and one between tips of sixth and seventh vein; at the base the tenth vein is broadly white haired.

*—Contribution from the Division of Systematic Entomology, Entomological Branch, Dept. of Agric., Ottawa.

Female. Flagellar antennal segments luteous, with cinereous hair; face and posterior half of thorax and most of squamae, black haired.

Holotype—♂, *Allotype*—♀, Orillia, Ont., June 26, 1926, (Curran); No. 2329 in the Canadian National Collection, Ottawa.

Paratypes—♂, ♀, same data.

A NEW SPRUCE GALL MIDGE (ITONIDIDAE).

BY E. P. FELT,

Albany, N. Y.

The smaller twigs of white spruce, *Picea canadensis*, may be rather seriously deformed by the attacks of a gall midge. The injury appears to be primarily an infestation of the basal portion of the needles and in this respect is very suggestive of the work of *Cecidomyia balsamicola* Lintn., a species insufficiently characterized and still unknown in the adult stage. In the case of the spruce insect, sections of twigs an inch long or so may be swollen to twice the normal size with here and there a greatly enlarged basal portion of the leaf and adjacent cortical tissue, these swellings occasionally being in closely set series, in which case the twig swelling is nearly uniform.

This peculiar type of work was first brought to our notice by Dr. J. M. Swaine in July, 1919, the specimens being obtained at Fort Coulonge, Quebec and the condition of the twigs simulating the appearance of a gall produced by *Chermes similis* Gill. No traces of the insect were found in this sending. Additional material from Manitoba was received from Dr. Swaine in January, 1926 and another series in May, the latter from Aweme, reared by Norman Criddle and dated May 1. This spruce insect is in all probability closely related to *Phytophaga balsamifera* Felt, a species described from females taken on balsam, *Abies balsamifera*, at Lake Clear, N. Y., June 7, 1906. It is possible that this last is identical with Lintner's *Cecidomyia balsamicola*. Satisfactory comparisons can be made, however, only when reasonably good series of adults are available.

Phytophaga picea n. sp.

Male. Length 1.5 mm. Antennae $\frac{3}{4}$ the length of the body, sparsely haired, dark brown, 14 or 15 segments, the fifth with a stem $\frac{1}{4}$ the length of the cylindrical basal enlargement; terminal segment slightly produced, broadly rounded apically. Palpi, first segment with a length twice its diameter, the second and third each about as long as the first, the third a little longer, somewhat dilated. Mesonotum slaty-brown, the submedian lines sparsely haired, scutellum dark reddish-brown, postscutellum reddish, abdomen dark reddish-brown, genitalia somewhat darker, halteres fuscous yellowish basally, reddish apically; coxae reddish-brown, femora fuscous yellowish basally, darker apically, tibiae fuscous straw, tarsi nearly black. Genitalia, basal clasp segment stout, terminal clasp segment moderately long, stout; dorsal plate deeply and triangularly emarginate, the lobes tapering to a narrowly rounded apex.

Female. Length 1.5 mm. Antennae extending to the third abdominal segment, sparsely haired, dark brown, 14 or 15 segments, the fifth cylindrical with a length about $2\frac{1}{2}$ times its diameter, abdomen dark reddish, the yellowish-orange ovipositor as long as the body, the lobes broadly oval and rather thickly setose. Otherwise about as in the male.

Pupa. ♂. Length 1.5 mm. Moderately stout, broadly rounded at both extremities, the antennal cases with short, stout, bidentate, basal processes and extending nearly to the base of the abdomen, the wing cases to the second abdominal segment and the leg cases to the third abdominal segment.

Pupa, ♀. Nearly as in the male, except that the posterior extremity is somewhat more pointed.

Exuviae whitish-transparent, very delicate and showing no signs of chitinous spines.

Type Cécid. A3011, N. Y. State Museum. Types deposited in the N. Y. State Museum and in the Canadian National Collection of Insects, Ottawa, Canada, No. 2288.

NEW DOLICHOPUS IN THE CANADIAN NATIONAL COLLECTION.

BY M. C. VAN DUZEE,

Buffalo, N. Y.

Dolichopus nigricoxa n. sp.

Male: Length 3.8-4.5 mm. Face rather wide, dark yellowish. Front shining green; palpi yellow; proboscis blackish. Antennae wholly black; third joint somewhat oval, a little longer than wide, scarcely pointed at tip. Lower orbital cilia yellow, a few of the upper ones black.

Thorax and abdomen dark shining green; pleura more black with a little gray pollen. Hypopygium black, its lamellae moderately large, somewhat oval in outline, white with a black border on apical margin, which is jagged and bristly.

All coxae wholly black, anterior pair with small black hairs on the front surface, and the usual bristles at tip. All femora and tibiae yellow. Posterior femora sometimes with a small black spot above at tip. Posterior tibiae with a little less than apical half black, distinctly thickened. Middle femora with a slender preapical bristle (cannot see one on the hind pair of any of the nine males or females before me); posterior femora with a short dense row of black hairs near the middle of the lower surface, the longest being shorter than the width of the femora. Fore tarsi yellow with the tip of first and whole of fifth joint black, fifth much compressed and widened, somewhat triangular in outline, truncate at tip but with the outer corners rounded, they are not quite as wide at apex as they are long; middle tarsi black from the tip of the first joint, which has a large bristle on upper posterior edge, a smaller one below it, and a still smaller one on lower surface, all near apical fourth; there are also several smaller ones on the lower surface. Posterior tarsi wholly black. Joints of fore tarsi as 58-33-25-10-20; of middle ones as 70-32-26-15-13; of posterior pair as 64-49-28-18-14. Calypters and halteres yellow, the former with black cilia.

Wings grayish; costa with an elongated enlargement at tip of first vein; last section of fourth vein quite abruptly bent near basal third, third vein bent so as to run nearly parallel with fourth beyond this bend; hind margin of wing nearly evenly rounded, scarcely indented at tip of fifth vein; anal angle prominent.

Female: Face wider, gray, not at all yellow. Color of body as in the male, but more dull; wings as in the male, except that the costa is not enlarged. Coxae, femora, tibiae and tarsi colored as in the male, except that the fore tarsi

are black from the tip of the first joint; middle basitarsi with a large bristle above near apical third, and several smaller ones below. Joints of fore tarsi as 45-20-14-8-10.

Described from three males and six females, taken at Barkerville, British Columbia, August 2, By N. Criddle.

Holotype, ♂, No. 1302, in the Canadian National Collection, Ottawa.

***Dolichopus simulans* n. sp.**

Male: Length 3.5 mm. Face moderately wide, silvery white. Palpi yellow, proboscis blackish. Front blue-green with a narrow edge of brown pollen. Antennae black, first joint a little reddish yellow at tip below; third joint long, rounded at tip, 24 fiftieths of a millimeter long, 9 wide, arista inserted at apical fifth. Lower orbital cilia white, upper ones black.

Thorax and abdomen green; dorsum of thorax dulled with gray pollen. Hypopygium black, its lamellae rather small, somewhat oval in outline, but straight below, white with the rounded edge very narrowly, and the apical edge widely black, jagged and bristly on apical margin.

Coxae yellow, outer surface of middle pair gray; anterior surface of front coxae with minute yellow hair, bristles at tip black. Femora and tibiae yellow; middle and hind femora each with one preapical bristle, the latter without cilia below. Posterior tibiae black at tip for one sixth their length, slightly thickened, with a narrow glabrous line above; fore tibiae without a bristle below, but with a long, slender, pale hair at tip below, which is more than half as long as the basitarsus (17 to 30); middle tibiae with a long bristle on lower, anterior edge at apical third, their basitarsus without a bristle below, except a small one at tip. Fore tarsi yellow, a little darker at tip; middle ones brownish from the tip of the first joint; posterior pair wholly black. Joints of fore tarsi as 30-12-10-7-7; three first joints of middle pair as 44-24-20; joints of posterior pair as 39-42-25-17-12. Calypters and halteres yellow, the former with black cilia.

Wings grayish; costa considerably thickened at tip of first vein, tapering to its tip; last section of fourth vein with a rather small bend before its middle, parallel with third beyond this bend, the third being only slightly bent back at tip; hind margin of wing not indented at tip of fifth vein, nearly evenly rounded, anal angle prominent, but rather narrow.

Holotype, ♂, taken at Glen Souris, Manitoba, July 8, 1925, (N. Criddle), No. 1303 in the Canadian National Collection, Ottawa.

This would run to *sicarius* V. D., C. & A. in the table of species (Males), in Bulletin 116, of the United States National Museum, 1921, p. 18, couplet 30. It differs from that species in the form of the antennae, in having the costa conspicuously enlarged at tip of first vein, and in other points.

***Dolichopus reticulatus* n. sp.**

Male: Length 5.5 mm. Face wide, a little narrowed below, yellowish. Palpi and proboscis black. First antennal joint yellow, very narrowly black on upper edge; second and third black, the latter nearly round in outline, but it is a little pointed at tip. Lateral and inferior orbital cilia yellowish white, about six of the upper cilia on each side black.

Thorax and abdomen green with bronze reflections, the former with a very little grayish yellow pollen on the dorsum; pleura and sides of abdomen with

a little white pollen; hair on the sides of the second segment of the abdomen short and black. Hypopygium black; its lamellae large, somewhat oval in outline, whitish with the apical border widely black, jagged and bristly.

Fore coxae yellow with a black spot at base on outer surface, anterior surface with long black hair, which becomes shorter towards their base and on inner half, they have the usual bristles at tip; middle and hind coxae black with their tips narrowly yellow. All femora and tibiae wholly yellow; posterior femora without cilia or longer hair below, but with a row of longer black hair on upper inner edge of basal third; middle tibiae with three large bristles below, one near basal third and a pair at apical third; posterior tibiae with a row of bristles below, which are short near the base, becoming longer towards the tip, the glabrous stripe on upper edge is not conspicuous. Fore tarsi yellow; fourth joint about as wide as long, infuscated; fifth joint black, much compressed and widened, oval, two-thirds as wide as long, fringed above with black hair. Joints of fore tarsi as 50-24-10-7-35, last joint 22 wide, their pulvilli small, whitish. Middle and hind tarsi black from the tip of the first joint; middle basitarsus with minute bristles below, without a bristle above; posterior tarsi with several large bristles on first joint. Calypsters and halteres yellow, the former with black cilia.

Wings grayish; costa thickened before the tip of first vein, tapering to its tip; last section of fourth vein moderately bent before its middle, straight beyond this bend; third vein bent backward at tip so as to be half as far from fourth at tip as at the bend in fourth; hind margin of wing a little indented at tip of fifth vein; anal angle prominent.

Female: Face a little wider and more gray than in the male. Middle and hind tibiae and tarsi, the wings and antennae as in the male. Fore tarsi plain, black from the tip of the first joint, first joint as long as the three following joints taken together.

Described from thirty specimens, all taken by E. P. VanDuzee; twenty-seven at Olney, Oregon, June 14 & 15, 1925; two at Newport, Ore., June 8; and one at the Biological station at Nanaimo, British Columbia, June 28, 1920.

Type in the California Academy of Sciences; paratypes in the Canadian National Collection.

This species runs to *talus* in the table of species in Bulletin 116, of the United States National Museum, 1921, p. 23. It differs from that species in the length of the joints of the fore tarsi: in *talus* these joints are as 62-42-28-11-33; the third and fourth joints in *talus* are more black and have silvery pollen on their sides; *reticulus* has the fore tarsi about as in *comoletus* V. D., C. & A., but in that species there is a large bristle on upper surface of middle basitarsus; the posterior tarsi are usually wholly black, and the second joint of fore tarsi is longer in proportion, the joints being as 52-34-10-8-38.

The first joint of fore tarsi of *reticulus* varied in the specimens I measured from 45 to 50 fiftieths of a millimeter in length but there was not any variation in the other joints that I could notice.

A NEW SAWFLY INFESTING COTTONWOOD IN BRITISH COLUMBIA.* (HYMENOPTERA; TENTHREDINIDAE.).

BY C. H. CURRAN,
Ottawa, Ont.

During the spring of 1926 specimens of a sawfly which had caused serious damage to cottonwoods in the neighborhood of Agassiz, B.C., were forwarded to the Dominion Entomologist for determination. As it was thought possible that it might prove to be of European origin, specimens were forwarded to Rev. F. W. Morice, Woking, England, who reported that it was a species of *Pachyne-matus* Konow, unknown to him. An examination of the characters separating this genus from *Pteronidea* Rohwer (*Pteronus* Auct.) indicates that, insofar as these genera are understood in America, it is best placed in *Pteronidea*, the tarsal claws being bifid, although the basal fork is shorter than the terminal one: it is not at a right angle, nor nearly so. The species in question is of unusually dark coloration for a *Pteronidea* and approaches, in this respect, a group of species belonging to *Amauronematus* Konow, but the head is short, not at all produced below and sub-oval instead of sub-triangular. I can find no description which could possibly apply to the species and therefore describe it as new.

***Pteronidea nigriventris* n. sp.**

Evidently related to *vicinalis* Cresson, but with a longer stigma. In Marlatt's table it finds no place in any section because of the almost wholly black abdomen, and the unusual extent of the black on the whole insect. Length, 7 to 8 mm.

Female. Shining black, the following parts yellowish white or whitish: labrum, base of mandibles, clypeus wholly or for the most part, sometimes the upper edge of the collar, tegulae, apices of coxae, trochanters, apex of femora below, under surface of tibiae, and basal half of saw sheaths; apex of abdomen narrowly pale yellowish; a large spot on either side of the front and a tapering, dorsally wider, occipital stripe reddish yellow or reddish, the stripe usually joined to the spot; mandibles ferruginous, their inner border and apex brown. Antennae wholly black, fourth segment a little longer than third or fifth; clypeus with a very broad, fairly deep, sub-rectangular emargination, the lobes obtuse, broad, sometimes almost transverse on their apex; frontal crest not sharply defined; ocellar basin only moderately defined, not sharply limited outwardly; antennal fovea deep, slightly curved. Intra antennal swelling strong, with a deep oval pit on upper half; a large, shallow, semicircular depression in front of anterior ocellus; inner fork of tarsal claw conspicuously shorter than the outer. Sheath broad, convex below, rather pointed. Stigma $2\frac{1}{2}$ times as long as wide.

Male. Rather darker, the tibiae beneath luteous; apex of abdomen not pale. Procidentia as long as wide, the apex broadened and very shallowly emarginate.

Holotype—♀, Agassiz, B. C., March 27, 1926, (R. Glendenning); No. 2325 in the Canadian National Collection, Ottawa.

Allotype—♂, same data.

Paratypes—2 ♀, 3 ♂, same data.

*—Contribution from the Division of Systematic Entomology, Entomological Branch, Dept. of Agric., Ottawa, Canada.

In the seven specimens before me there is a quite appreciable variation in the strength of the ridges on the head. The above description is based upon the majority of specimens.

NOTICE OF REQUEST TO ADMIT HUBNER'S (1806) "TENTAMEN"
TO NOMENCLATORIAL STATUS UNDER SUSPENSION OF ..
INTERNATIONAL RULES.

The Secretary of the International Commission on Zoological Nomenclature has the honor to invite attention of the zoological profession to the fact that application has been made for the Suspension of the International Rules, in the case of Hubner's (1806) "Tentamen" in order to establish its nomenclatorial availability.

Briefly summarized: The formal nomenclatorial status of this document, involving about 100 names admitted by some authors as of generic rank, has been under controversy for many years, and opinion of specialists in *Lepidoptera* is still divided.

The arguments, as submitted, in favor of Suspension of Rules, maintain that: (1) there are sound reasons both for admitting and for denying recognition to the "Tentamen," from the standpoint of interpreting the Rules; (2) the evidence *pro* and *con* is not sufficiently conclusive to remove the question from debate; (3) the rejection of the "Tentamen" will produce greater confusion than uniformity, will necessitate a vast amount of undesirable labor and economic loss of time and work; (4) if, on the ground of expediency, the Rules can be suspended in this case, the nomenclature of the *Lepidoptera*, as used for the past 30 years, can be largely maintained.

The "Tentamen" is one of the most important and most controversial cases ever submitted to the Commission. A discussion, with essential bibliographic references, will be found in "Smithsonian Misc. Coll., v. 73 (4)" (now in press).

The Commission will delay announcement of vote, on the requested Suspension, at least until September 1, 1927, in order to give interested authors, and especially entomological societies, opportunity to study the premises and to present to the Commission their views and arguments, *pro* and *con*, regarding the action requested.

In order to protect groups other than *Lepidoptera*, a prerequisite to Suspension of Rules would be that representative specialists in *Lepidoptera* agree upon and furnish to the Commission definite bibliographic references to the 107 names which they view as genotypes.

C. W. Stiles, Secretary to Commission, U. S. Hygienic Laboratory, Washington, D. C.

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